

What is claimed is:

- 1 1. A method for content delivery, comprising:
2 requesting a piece of content;
3 delimiting the piece of content into one or more portions at a
4 source;
5 associating an identifier with a selected one of the one or more
6 portions of the content;
7 sending the identifier to a destination; and
8 looking up the identifier at the destination and, if the identifier is
9 found, retrieving the associated portion of content at the destination and,
10 if the identifier is not found, receiving the associated portion of content
11 from the source.
- 1 2. The method according to claim 1, wherein if the identifier is not
2 found, the method further comprises storing the identifier and the
3 associated portion of content at the destination.
- 1 3. The method according to claim 1, wherein the identifier and the
2 associated portion of content are stored in a look-up table at the
3 destination.
- 1 4. The method according to claim 3, wherein the look-up table
2 memory comprises a content addressable memory (CAM).
- 1 5. The method according to claim 1, further comprising computing
2 the identifier from data contents of the associated portion of content.
- 1 6. The method according to claim 5, wherein the identifier is an
2 MD-5 hash value.

1 7. The method according to claim 6, wherein the identifier is an
2 SHA-1 hash value.

1 8. The method according to claim 1, wherein the source sends the
2 identifier and waits for an indication from the destination before sending
3 the associated portion of content.

1 9. The method according to claim 1, wherein the source sends the
2 identifier and the associated portion of content and, if the identifier is
3 found at the destination, the destination interrupts sending of the
4 associated portion of content.

1 10. The method according to claim 1, wherein the piece of content is
2 a web page.

1 11. The method according to claim 1, wherein the piece of content
2 includes dynamic and static content.

1 12. The method according to claim 11, wherein said one or more
2 portions include at least one portion consisting of static content.

1 13. The method according to claim 12, wherein said one or more
2 portions include at least one portion containing mixed or dynamic
3 content.

1 14. The method according to claim 13, further comprising assigning
2 identifiers to each portion consisting of static content.

1 15. The method according to claim 1, wherein said one or more
2 portions are of fixed size.

1 16. The method according to claim 1, wherein said one or more
2 portions are of variable size.

1 17. The method according to claim 1, wherein said delimiting is
2 performed by comparing the piece of content to another piece of content
3 and determining which portions are common to both.

1 18. The method according to claim 1, wherein said delimiting is
2 performed based on features contained within the piece of content.

1 19. The method according to claim 18, said features including white
2 or blank space to be displayed.

1 20. The method according to claim 1, further comprising assembling
2 the piece of content at the destination from at least one portion retrieved
3 at the destination and at least one portion received from the source.

1 21. The method according to claim 1, said sending being via a wide
2 area network.

1 22. An apparatus for delivery of content data comprising:
2 a source having a plurality stored pieces of content, the source for
3 receiving requests for content, delimiting the pieces of content into
4 portions and assigning identifiers to the portions of content; and
5 a destination coupled to the source via a network, the destination
6 for providing the requests for content, receiving the identifiers from the
7 source in response to the requests and looking up the identifiers in a
8 look-up table at the destination, and wherein when an identifier is found
9 in the table, the destination retrieves an associated portion of content
10 from the table and when the identifier is not found in the table, the

11 destination receives the associated portion of content from the source via
12 the network.

1 23. The apparatus according to claim 22, the source comprising a
2 server and a far proxy, the server for storing the pieces of content and
3 the far proxy for delimiting portions of the pieces of content.

1 24. The apparatus according to claim 23, wherein the server
2 comprises a web server.

1 25. The apparatus according to claim 22, the destination comprising a
2 recipient of content and a near proxy for looking up identifiers received
3 from the source in the table.

1 26. The apparatus according to claim 22, wherein when the
2 destination receives the associated portion of content from the source,
3 the destination stores the identifier and the associated portion of content
4 in the table.

1 27. The method according to claim 22, wherein the source sends the
2 identifier and waits for an indication from the destination before sending
3 the associated portion of content.

1 28. The method according to claim 22, wherein the source sends the
2 identifier and the associated portion of content and, if the identifier is
3 found at the destination, the destination interrupts sending of the
4 associated portion of content.

1 29. The method according to claim 22, wherein the source attempts
2 to delimit the portions into those which consist of static content and
3 those which contain dynamic or mixed content.

1 30. The apparatus according to claim 29, wherein the source attempts
2 to delimit the portions into those which consist of static content and
3 those which contain dynamic or mixed content by comparing pieces of
4 content to each other and determining which portions are common.

1 31. The method according to claim 29, wherein the source attempts
2 to delimit the portions into those which consist of static content and
3 those which contain dynamic or mixed content based on features
4 contained within the piece of content.

1 32. A method for content delivery, comprising:
2 requesting a piece of content;
3 delimiting the piece of content into one or more portions at a
4 source;
5 associating an identifier with a selected one of the one or more
6 portions of the content; and
7 determining whether to send the selected one or more portions of
8 content or the identifier to the destination based on information at the
9 source.

1 33. The method according to claim 32, said determining comprising
2 looking up the identifier at the source and, if the identifier is not found at
3 the source, the method further comprising sending the portion to the
4 destination.

1 34. The method according to claim 33, further comprising storing the
2 identifier and the associated portion of the content in a look-up table at
3 the destination.

1 35. The method according to claim 33, further comprising storing the
2 identifier in a table at the source.